

Abstract of the Disclosure

A method for forming a transistor of a semiconductor device wherein a deposition of a buffering oxide film prior to deposition of a nitride film for a gate spacer is performed at a low temperature to prevent out-diffusion of impurities implanted in a source/drain region, thereby providing a semiconductor device with low contact resistance for a bitline and a storage electrode is disclosed. The method for forming a transistor of a semiconductor device comprises the steps of: forming a gate electrode on a semiconductor substrate; ion-implanting impurities into the semiconductor substrate using the gate electrode as a mask to form a source/drain junction region; forming an oxide film on the resulting structure at a temperature below 700°C; and forming a nitride film spacer on a sidewall of the gate electrode.